

★

UMASS AMHERST

★



312066 0262 2507 7

NO. 34330 DATE 6-7-11

SOURCE J.H.

6315
7677
- 152
v.1

[illegible]

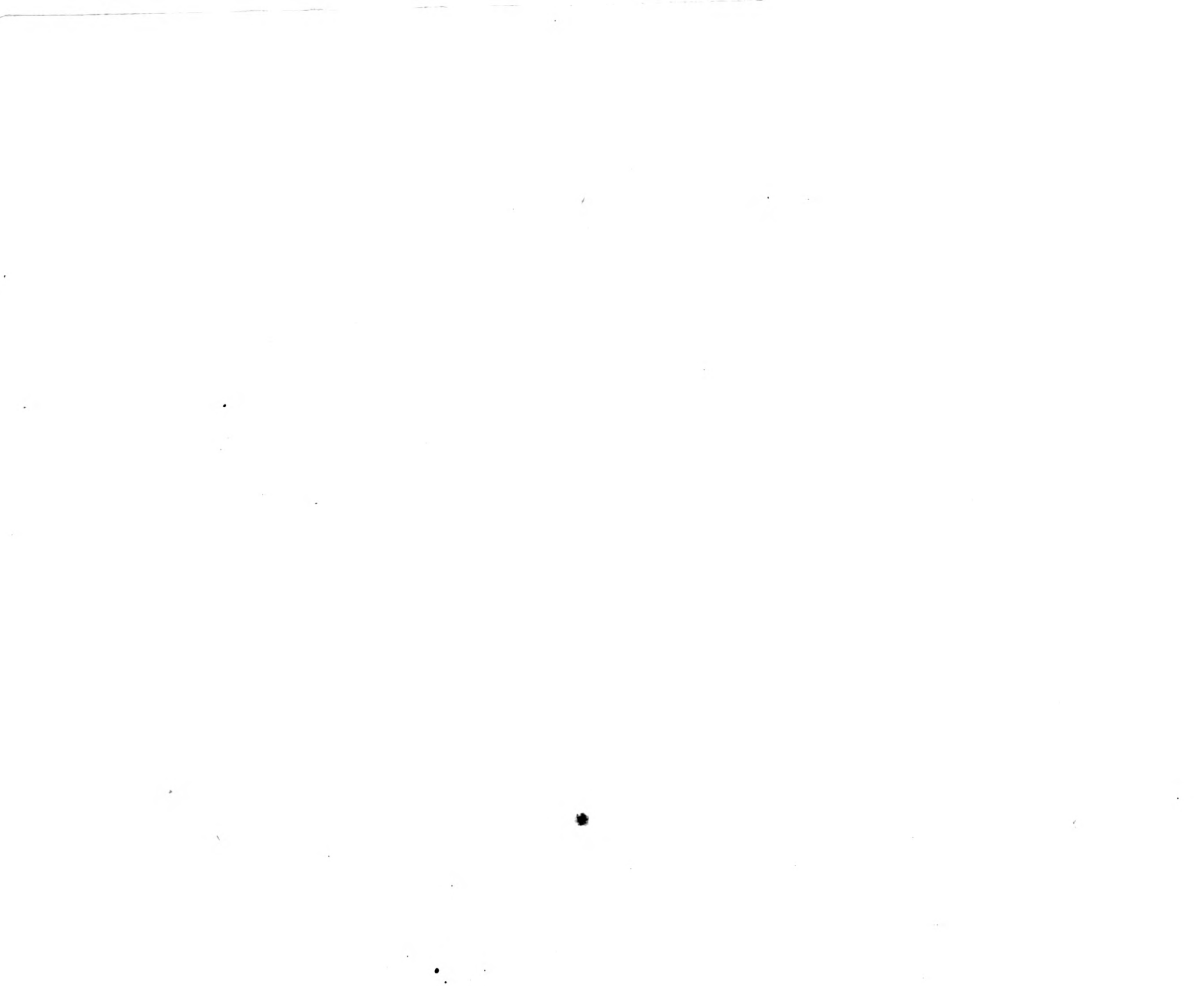
SPECIAL COLLECTIONS
& ARCHIVES

CARD

This book may be kept out

TWO WEEKS

only, and is subject to a fine of TWO
CENTS a day thereafter. It will be due on
the day indicated below.



International harvester co.

Farm implements.

v. 1

630.621
In 8
v.1

BELLE CITY

THRESHERS



SOLD BY
INTERNATIONAL HARVESTING MACHINE COMPANY OF AMERICA
(INCORPORATED)
CHICAGO, ILL.





INTRODUCTION

The demand for a threshing machine to be used by the individual farmer is the natural outcome of good business judgment. No progressive farmer willingly permits the loss of his grain after he has labored diligently to raise it. The Belle City thresher is a machine made expressly for farmers who are anxious to get all of the profit from their efforts. It is a thresher that, owing to its weight, compactness, simplicity and general efficiency, can be operated with very little help and a small amount of power. Its success is not due entirely to the demand for a machine of this kind, but mainly to the application of exact mechanical knowledge in its construction.

SOLD BY

International Harvester Company of America

(INCORPORATED)

CHICAGO U S A

BELLE CITY THRESHERS

The Threshing Outfit for Individual Farm Use

THE Belle City is made to meet the demands for a thresher of moderate weight requiring a small amount of power. It meets the requirements of the individual farmer in every respect and it also meets the requirements of farmers who wish to club together and have an outfit to take care of their respective jobs. This machine is light, compact, of good capacity, does excellent work, and requires very little power to operate. With this outfit a farmer is fortified against profit-reducing threshing conditions.

When his grain is ready to thresh, the farmer who has a Belle City thresher is ready; therefore he effects a great saving, because any day a storm may come to waste a large portion of the grain; not only that, he can run the grain through the machine as it should be and not crowd the machine beyond its capacity, and by so doing, the grain will be thoroughly cleaned from the straw. The losses resulting from being dependent upon someone else to do the threshing, mean much to a farmer when he has labored diligently all summer to produce the crop.

The Belle City thresher will overcome these profit-reducing conditions. With it you can thresh just when you are ready, get the grain on the market early, and receive a big price for it. In a letter from Wm. L. Orr, Logan, Iowa, concerning his Belle City outfit, he says:

"I threshed and hauled my wheat to mill and had my money before anyone else in this county had begun to thresh, and by so doing I got from 10 to 20 cents per bushel more for my wheat, as the mills all wanted it at that time and there was no wheat coming in at that early date. Then it began to rain quite frequently after I was done threshing my wheat, and some of my neighbors who had fall wheat the same as mine lost a large per cent of it, and what they did thresh sold very cheap."

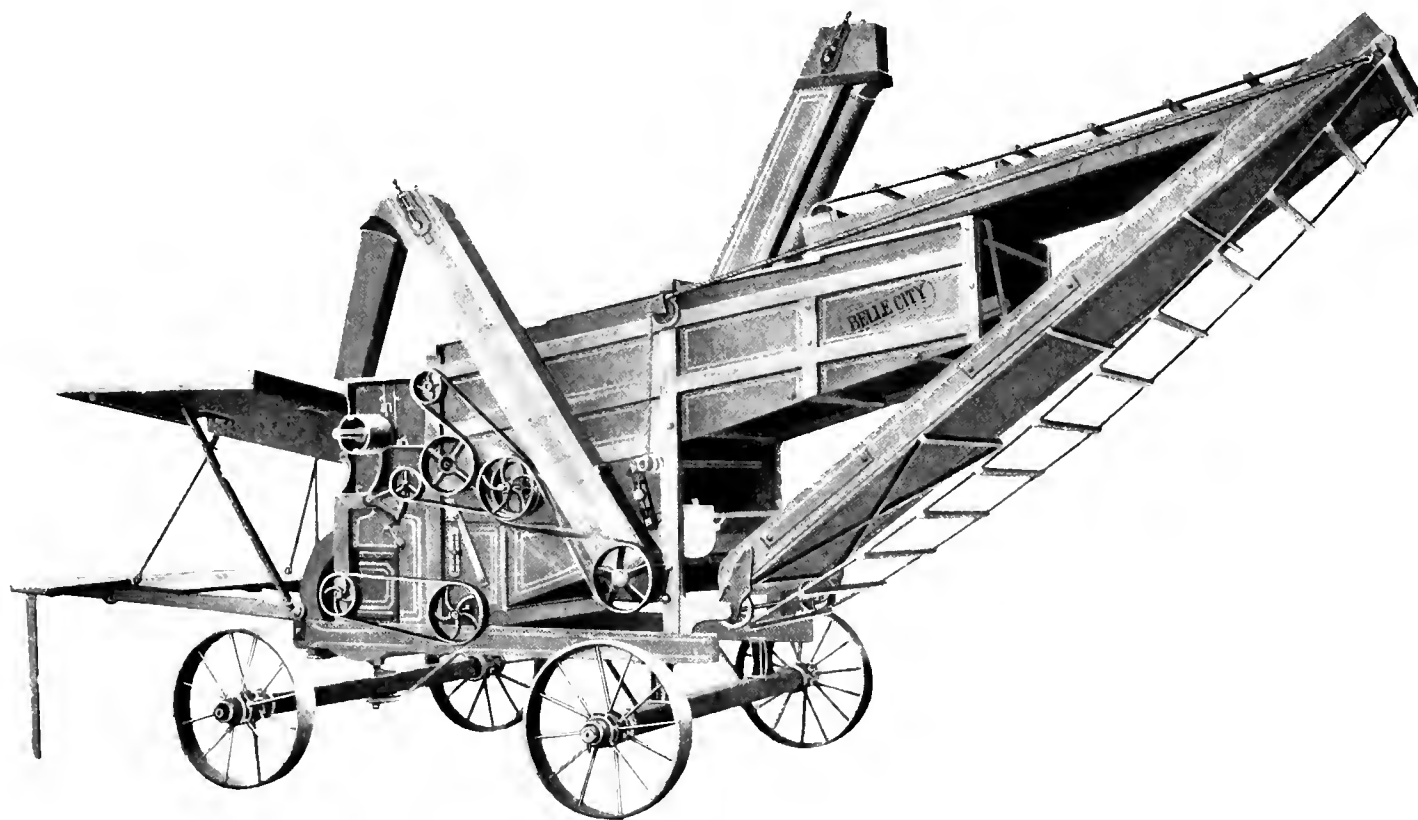
Very little help is required to operate the Belle City thresher. You and your boys or your hired help can handle it very satisfactorily. You do not have to pay for additional help, or pay back in work to your neighbors the assistance which you must call upon them to give you when large crews do your threshing. The work for your wife is not increased (you know how well your wife likes to cook for threshers), and you are not eaten out of house and home.

Doing your own work with your own help, you will not see how much you can get through the machine, but you will thresh and separate all the grain there is in the straw.

No expert is needed to operate the Belle City—no previous experience in threshing is necessary.

The capacity of the Belle City is exceptionally large considering the size of the machine.

BELLE CITY THRESHERS



Belle City equipped with 18-foot folding stacker and grain elevator with long swinging spout - Right side

BELLE CITY THRESHERS

Belle City Thresher—Sizes and Equipment

BELLE CITY threshers are made in five sizes—16 inches by 24 inches, 24 inches by 24 inches, 24 inches by 32 inches, 32 inches by 32 inches, 32 inches by 40 inches. Any of these different size machines may be equipped with the following attachments:—hand feed, self feeder, folding stacker, blower, short elevator and bagger, grain elevator with long swinging spout, weigher and bagger with cross conveyor, weigher with swinging spout, etc. The attachments ordered, of course, govern the price of the outfit.

Little Power Required

A characteristic of the Belle City thresher that commands instant attention is the small amount of power required for its operation. Minimum friction accounts in part for the ease with which this machine can be driven. Just as few running parts as possible are used—there is no complicated mechanism. This means few parts to wear and get out of running order. All of the shafts have long bearings and correctly babbitted boxes with oiling facilities. The bearings are made exceptionally durable, and all pulleys on which there is very much strain are covered with leather to prevent loss of power through slipping of belts.

Light Weight Machine

The Belle City thresher is a compact machine. It is made in this way to meet the requirements for a machine that can be used on comparatively soft fields and also be easily hauled on all kinds of roads, particularly in hilly and mountainous districts. The Belle City is as compact as it is possible to make it without affecting its superior work and capacity.

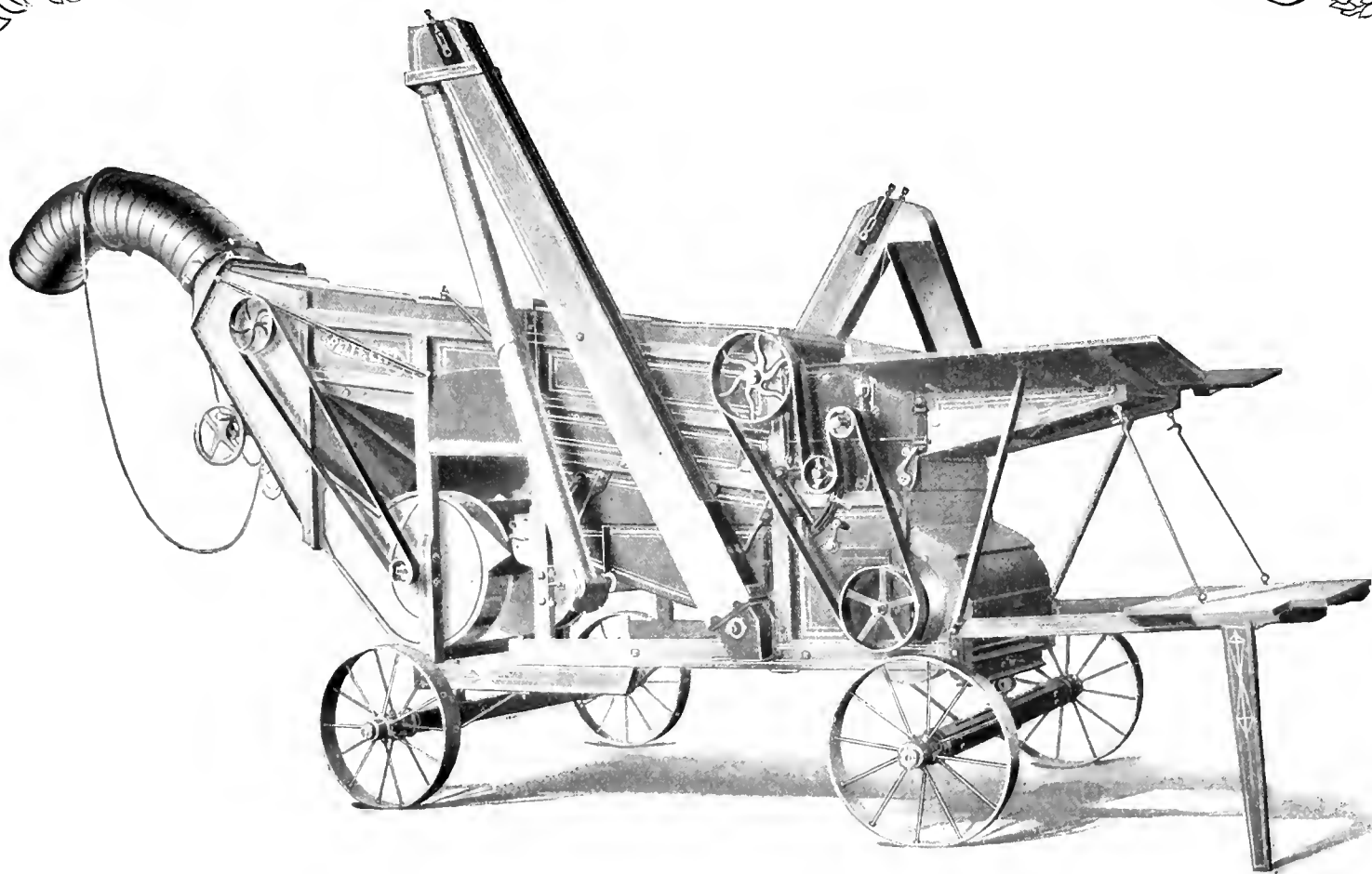
Very Simple Machine

The Belle City thresher is a very simple machine. Anyone can handle it proficiently—previous threshing experience is unnecessary.

Many users of the Belle City thresher who operate it with an International Harvester Company gasoline engine say that one man can easily look after both the separator and the engine.

The working parts of this thresher consist of a patent shell cylinder, a three-wing steel beater, unsurpassed straw conveyor, sieves, and fan.

BELLE CITY THRESHERS



Left side of Belle City Thresher—Machine is equipped with hand-feed attachment, steel frame blower, and long swinging grain spout

BELLE CITY THRESHERS

Built to Last

THE Belle City thresher is praised for its lasting qualities by all farmers who have used it or have seen it used. Its durability is due to the high grade of materials used and the substantial manner in which the parts are assembled—note the frame work of the machine on the opposite page. The lumber used is thoroughly air-dried. It is placed in the yard at the factory, where it remains a sufficient length of time to season properly. Air-dried lumber is the only kind that should ever be used in constructing a thresher, because kiln-dried lumber is brashy and will stand the work only a very short time. The wood parts of a Belle City thresher that are subject to wear are lined with sheet steel.

Will Thresh All Kinds of Grain

The Belle City thresher will thresh all kinds of grain and do the work in the cleanest and most satisfactory manner. It has been used repeatedly to thresh different grains under various conditions and has always proved successful. The quantity of wet and soggy grain it will handle is surprising.

Thorough Separation

A thresher constructed like the Belle City insures a large percentage of separation at the concaves. It is admitted that the best place to separate the grain from the straw is at this point. If perfect separation could be accomplished here, no rakes or other attachments would be necessary. It is claimed that the Belle City comes nearer this ideal than any other make.

When the advantages of this machine are considered, any farmer who has threshing to do will find that he cannot profitably be without one. The money that is saved on the threshing bill by doing his own work with his own power and help at the proper time, will pay for the Belle City in one or two seasons, depending, of course, on the amount of grain threshed.

Capacity

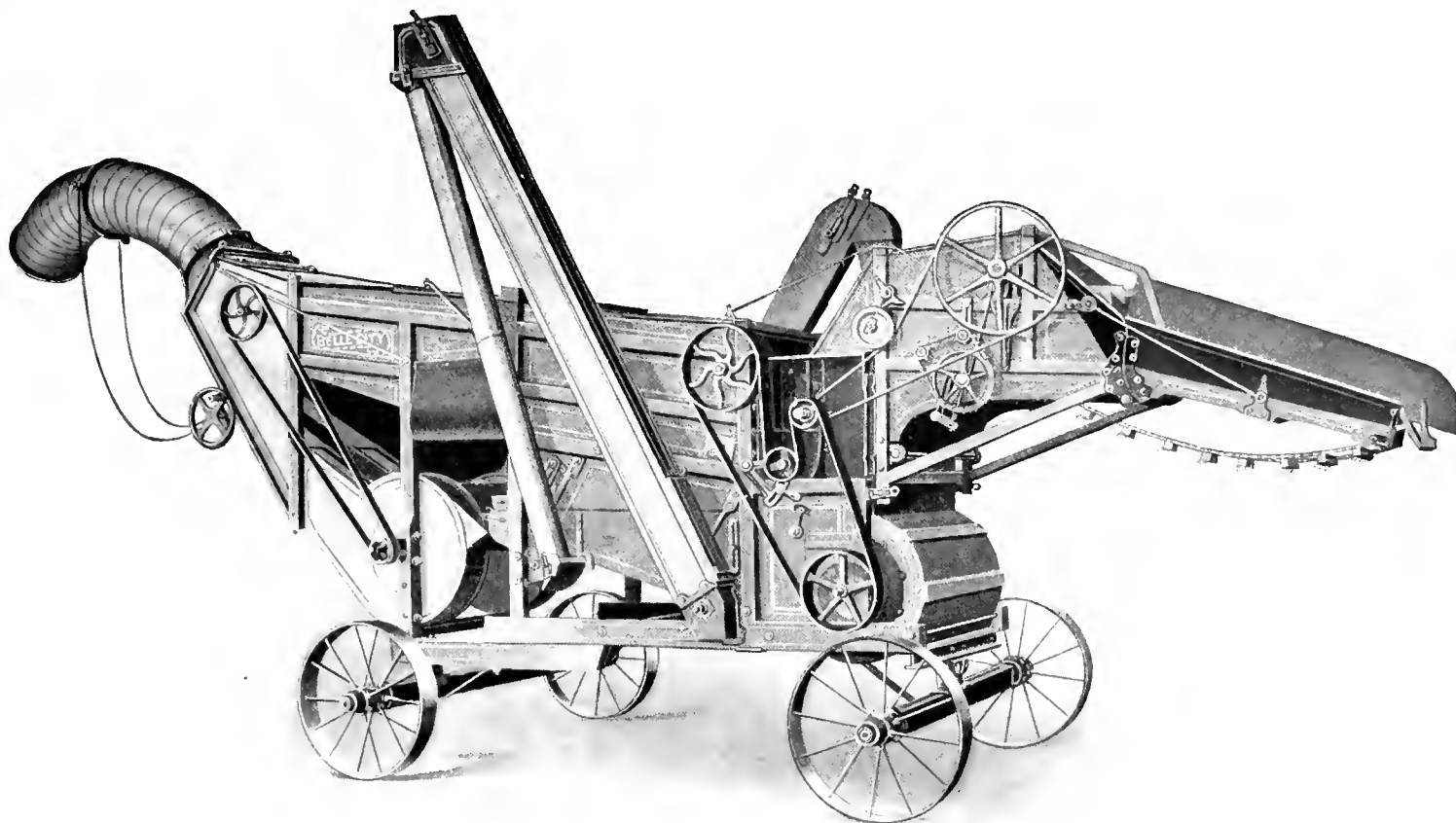
It is impossible to state the exact capacity of a thresher unless conditions are known.

It depends: 1st, on the kind and quantity of power used; 2nd, yield of grain as compared with quantity of straw; 3rd, kind and condition of straw; 4th, skill of the operators.

The yield of grain, size and condition of straw vary greatly in different localities and even in the same locality in different seasons. The table below shows the capacity per hour in average conditions of straw and grain for wheat and oats. Capacity in other grains can be estimated closely.

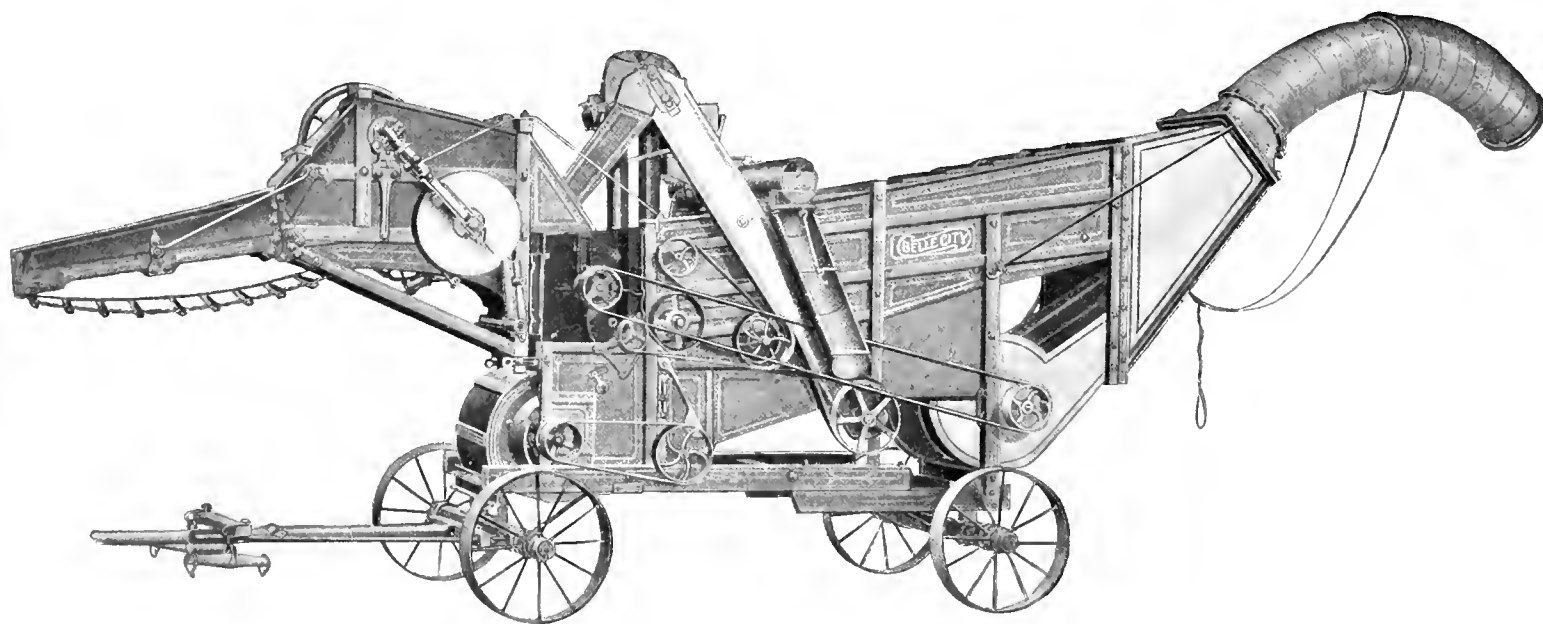
	16-inch x 24-inch	24-inch x 24-inch	24-inch x 32-inch	32-inch x 32-inch	32-inch x 40-inch
Wheat	20 to 40 bu.	30 to 60 bu.	40 to 70 bu.	50 to 80 bu.	60 to 100 bu.
Oats	40 to 60 bu.	60 to 90 bu.	70 to 125 bu.	90 to 150 bu.	110 to 180 bu.

BELLE CITY THRESHERS



Belle City Thresher equipped with self-feeder and steel frame blower—Left side

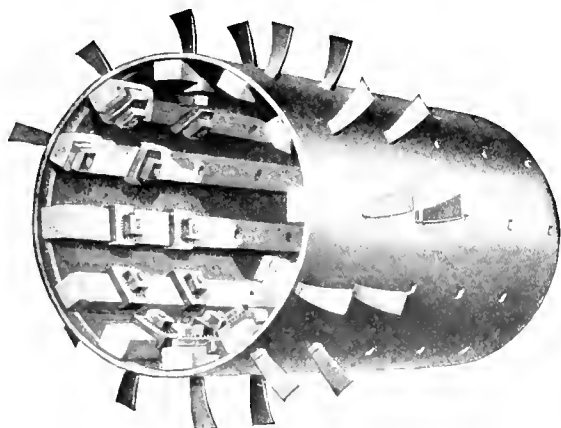
BELLE CITY THRESHERS



Belle City equipped with steel frame blower, weigher and cross conveyor, and self-feeder—Right side

BELLE CITY THRESHERS

Cylinder



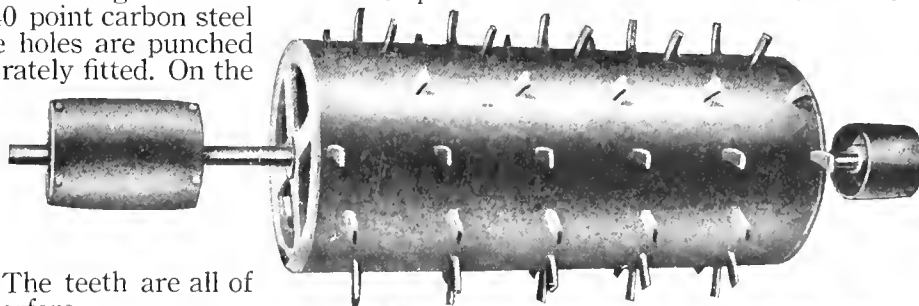
View showing Interior of Cylinder—note manner of fastening teeth

THE cylinder on the Belle City thresher is unsurpassed for separating the grain from the straw. This cylinder has a steel tube shell instead of widespread cross bars. It presents a smooth surface to the grain, making the cylinder very light running. The only resistance to the cylinder is in the concaves as the straw is carried through. Every head of grain passes through the concaves in this machine. This feature makes it far preferable to the machine with the bar cylinder. Fully 85 per cent of the separating takes place at the cylinder in the Belle City, the remaining 15 per cent is handled easily at the rear of the machine. Note in the illustration that there are no bands used on the cylinder. It is almost impossible to shrink bands on a cylinder without causing unequal tension. The perfect balance of the Belle City cylinder is due to the even thickness of the shell at every point.

The steel tube shell of the Belle City thresher is 14 inches in diameter. This shell has substantially cast heads that are accurately fitted into the ends. The cylinder heads screw onto the cylinder shaft and are secured to it on the inner side by lock nuts. It is impossible for the cylinder to work loose because of the manner of attaching the heads to the shaft. They are far more secure than if they were fastened by keys.

The teeth on the Belle City cylinder are arranged in 12 rows and are spaced in the best manner to do excellent work. These teeth are made of special 40 point carbon steel and are very hard and durable. Square holes are punched into the shell in which the teeth are accurately fitted. On the inner side of the cylinder is a metal bar for each row of teeth, through which each tooth passes. The teeth are held in place by nuts and washers. The washers, as will be seen by referring to the illustration at the top of the page, have a corrugated surface to prevent the nuts from working loose. The teeth are all of equal length, as there are no bands to interfere.

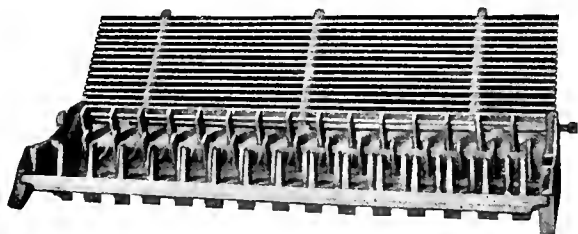
The cylinder shaft runs in boxes that have long bearing surfaces. None but the best babbitt is used in the



Belle City Drum Cylinder

BELLE CITY THRESHERS

CYLINDER—CONTINUED



Concaves and Grate—Regular outfit

boxes and each box is equipped with a self-feed oil cup. The cylinder is supported by iron sides which are connected by means of bolts to the front sets of frame posts. This makes a very strong enclosure for the cylinder and forms a rigid support for the cylinder shaft boxes.

Extra heavy tool steel is used in the cylinder shaft. The shaft is easily removed from the cylinder by loosening the lock nuts on the inside of the heads and turning the shaft backwards. A ratchet wrench is furnished with which the nuts are tightened through the heads in the ends of the cylinder.

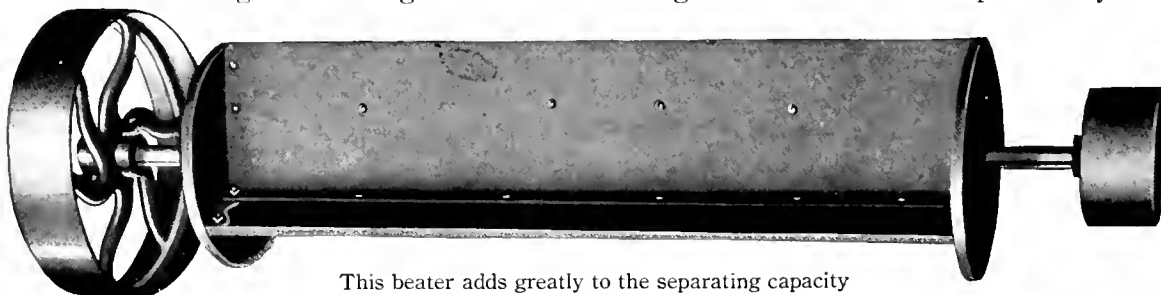
Concaves and Grate

Each Belle City thresher is equipped with four concaves—two with teeth, one without teeth, and one cast grate. These concaves are constructed in the best manner to most efficiently aid the cylinder in separating the grain from the straw. They fit accurately into the concave circles and are raised or lowered by a ratchet which is convenient to the feeder. The cast grate is constructed in the best manner to let all the grain pass through to the pan of the conveyor beneath. The filled concaves have two rows of teeth. The concave without teeth is provided so that in case it is desired to use two more rows of concave teeth they can be easily inserted. Each tooth is held in place by a lock nut on the under side.

Directly back of the concaves is the grate. This grate is made of wrought iron bars that are separated by cast washers. The construction of this grate permits large quantities of grain to pass through.

Beater

A beater, 12 inches in diameter, with three wings, operates just back of the cylinder to prevent straw from accumulating at that place. It also forces the straw down on the straw rakes in an even layer so that thorough separation takes place and the straw is kept moving. This is an excellent feature, because there can be no choking or clogging due to accumulations of the straw and chaff back of the cylinder.

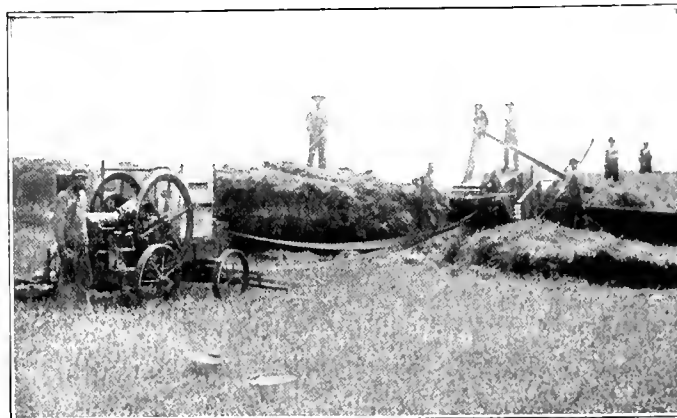


This beater adds greatly to the separating capacity

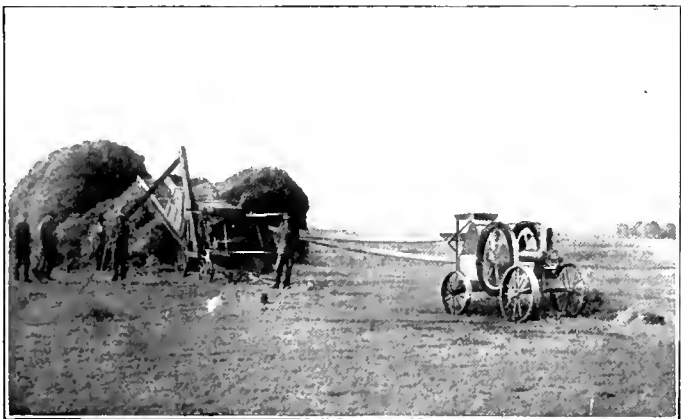
BELLE CITY THRESHERS



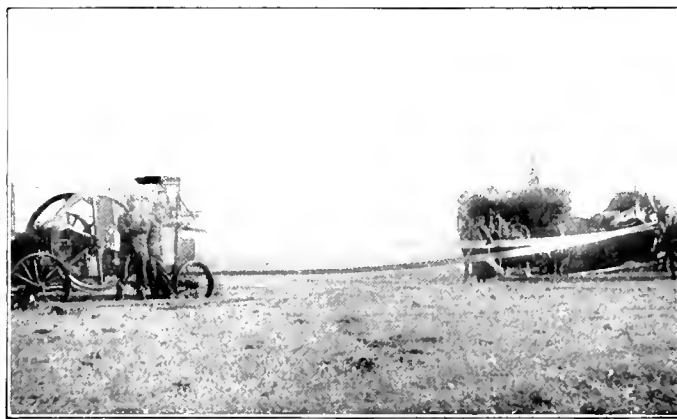
Belle City thresher working for Carbuhn Bros. & Scharnhorst,
Genesee, Idaho



Belle City outfit on Wm. Klatts' farm, Brooklyn, Iowa

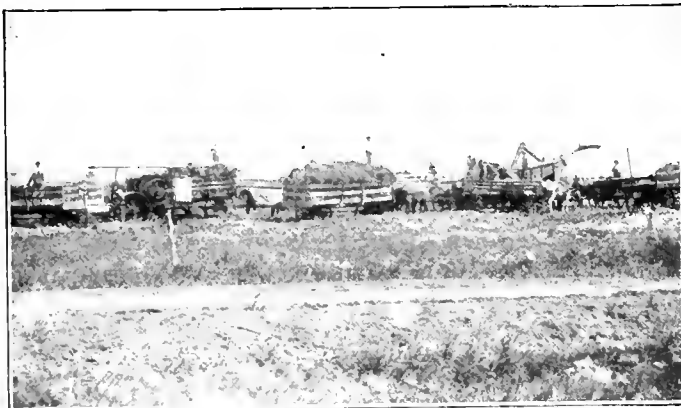


Belle City thresher and I H C portable engine on Lakewood ranch,
Rush, Colorado

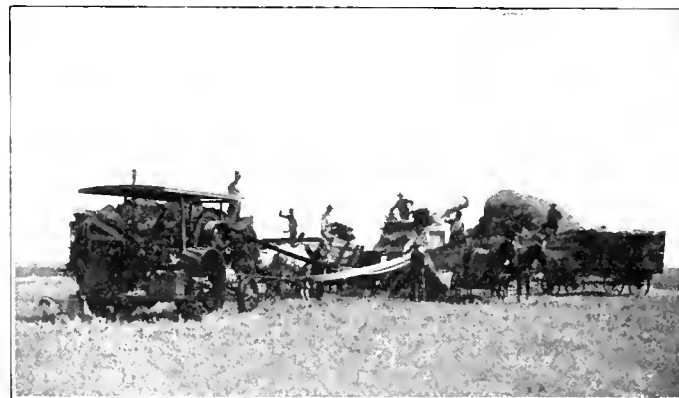


Belle City thresher equipped with self-feeder on farm near
Minot, N. D.

BELLE CITY THRESHERS



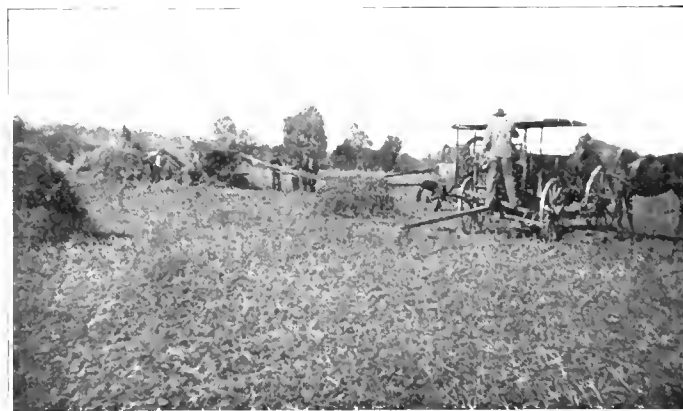
Belle City outfit on the farm of George Geareaux, Turten, So. Dak.



Busy Belle City threshing outfit owned by Charles Barrickman, Faulkton, So. Dak.

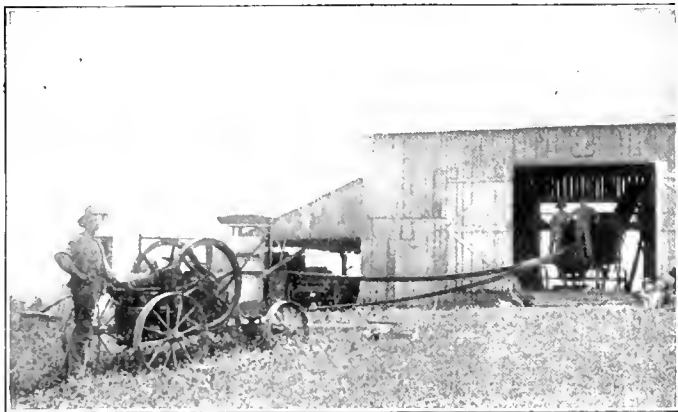


Thorough separation insured when the Belle City is used



Runs as well in the field as in the barn

BELLE CITY THRESHERS



Belle City threshing outfit owned by C. R. Arnold, Fay, W. Va.



Belle City thresher on a Central Illinois farm



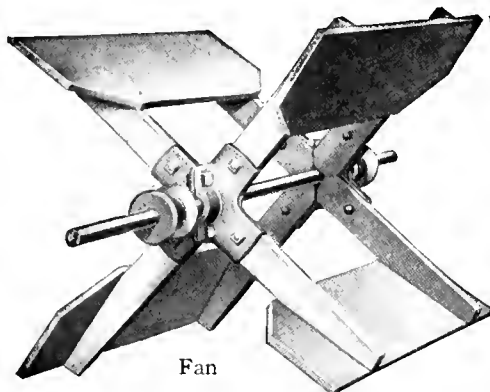
The Belle City thresher is the best for the use of the individual farmer



The Belle City thresher on a western ranch

BELLE CITY THRESHERS

Fan



Fan

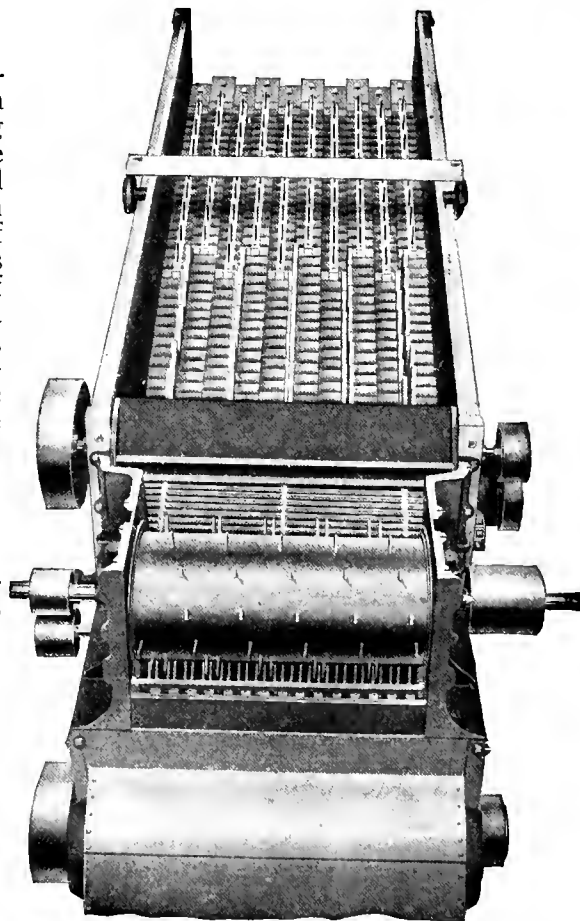
To accomplish the best results in cleaning the grain in a threshing machine, the cleaning should begin as soon as the grain and chaff have passed the cylinder. As the fan on the Belle City threshing machine is of the under blast type and is located in the front end of the machine a little ahead of and below the cylinder, the cleaning of the grain begins as it should to obtain the

best results. On each side of the fan are blinds for regulating the blast. These blinds can be conveniently adjusted by the feeder. The blast of the fan catches the chaff and raises it up and over the sieves at the rear end of the machine as soon as the grain and chaff fall from the grate and the grain bottom under the rakes to the conveyor. The chaff and grain are never permitted to bank in the shoe.

The power for the fan is transmitted directly from the cylinder shaft by means of a belt. The fan shaft runs in babbitted boxes with long bearings. These boxes are rigidly bolted to the front bolster.

Straw Rakes

The illustrations show very clearly the construction and arrangement of the straw rakes on the Belle City threshing machine. These rakes are second to none in efficiency for separating grain from the straw. Each rake is fitted with two fish backs at the front end, and extending from the ends of the fish backs to the outer ends of the rakes are wood strips with long spikes. The rakes toss the



Interior view of machine



Straw Rake

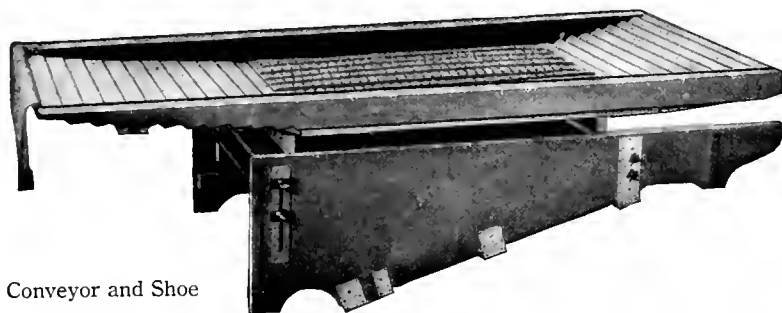
BELLE CITY THRESHERS

straw and aid in loosening it so that the grain readily drops through to the grain bottom. Metal plates on the under side of the rakes draw the chaff and grain down to the grain bottom during the lower half of the backward portion of the stroke and deposit it on the front end of the pan of the conveyor.

There is no dead space between the rakes. All of the rakes fit closely together and when in operation the entire rake portion of the machine is in motion. The rakes are attached at the front end by maple boxes to a crank shaft that has a separate arm for each rake. A rotary motion is given each rake by the crank. The rakes being on the incline, an upward and outward motion is imparted to the straw. The straw is kept constantly in motion and passes out in an even, thin layer, consequently the best possible speed is given to the straw, and clogging and bunching are prevented.

Conveyor

The conveyor extends the full length and width of the machine. It consists of a heavy corrugated galvanized iron pan and a special Closz & Howard conveyor sieve. The pan, being directly under the cylinder, concaves, and the front end of the grain board, collects the grain as it falls and passes it on to the conveyor sieve. There is no possibility of over-loading the shoe when an attachment, as described above, is used. The cleaning of the grain is also improved and the capacity of the machine is greatly increased.



Conveyor and Shoe

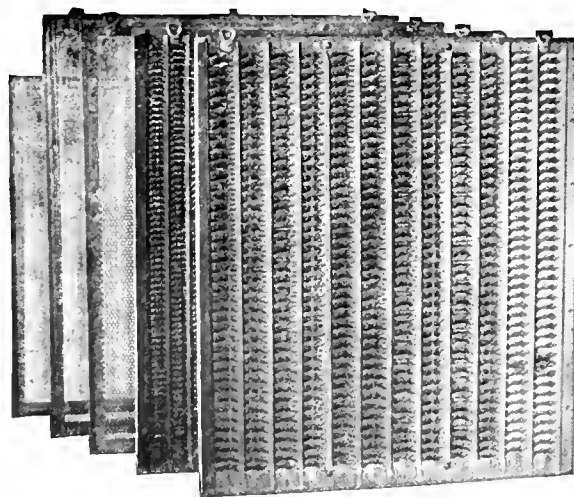
The conveyor has a combined motion of 2-inch end throw and 1-inch up throw. This motion is received from an eccentric on the balance wheel, which moves the crank shaft. Rocker arms hanging from a shaft extending the full width of the machine support the rear end of the conveyor. The front end of the conveyor is supported by steel links.

The conveyor extension is fifteen inches long and is so constructed that it allows the unthreshed heads of grain to drop through into the tailings auger. From the tailings auger they are conveyed back to the cylinder by the tailing elevator. Straw and chaff are readily disposed of by this extension. It entirely eliminates overloading the tailings auger, and the grain is prevented from being carried out by the straw. The conveyor extension is connected to the conveyor by attachments that permit adjustments for all conditions of grain.

Shoe

The shoe is of the end-shake pattern and receives its motion from two eccentrics on the fan shaft, to which it is connected by two wooden pitmans, one on each side. These eccentrics are provided with large maple boxes and the shoe is hung on wood springs. Two rods hold the bottom of the shoe, which is removable.

BELLE CITY THRESHERS



Sieves—Regular Equipment

of the shoe permit placing the sieves in different positions. These changes are made from the outside of the shoe.

To change the sieves it is only necessary to loosen the rods and remove the bottom of the shoe. This feature is found very convenient when either a wind stacker or blower is used. It is customary to change the sieves from the rear end of the shoe on the regular machine. The following sieves are furnished with each machine:

- 1 Closz & Howard oat sieve
- 1 Closz & Howard wheat, barley, and rye sieve
- 1 perforated zinc wheat sieve
- 1 wire flax sieve
- 1 wire shoe screen

The sieves are all 38 inches long and the full width of the machine. Special sieves can be supplied when desired.

Adjustable Sieve and Adjustable Conveyor

If an adjustable sieve or an adjustable conveyor is preferred to the regular sieve equipment, it will be furnished at a slight additional cost. The adjustable sieve and adjustable conveyor are very convenient because they can be quickly adjusted while the thresher is in operation.

Belle City Plain Stacker

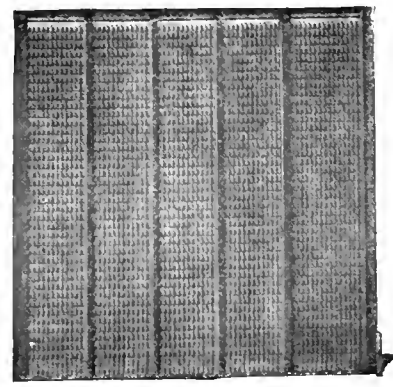
The plain stacker on the Belle City thresher is 18 feet long and the full width of the machine. When this stacker is not in use it can be easily folded out of the way. It is hinged in the center for this purpose, and when folded adds very little length to the body part of the machine. This stacker can be raised or lowered with ease by the convenient windlass over the rear axle.

The straw apron consists of two strong belts, to which are riveted wood slats 12 inches apart.

Those who prefer a longer stacker can procure a 24-foot length, which will be furnished at a slight additional cost.

Sieves

The Belle City thresher is praised because of the excellent cleaning capacity of the sieves. The sieves are the celebrated "no choke" sieves made by Closz & Howard, and they do the work easily under all conditions of grain or seeds without trouble or delay. These sieves prevent waste of grain, require very little attention, and are very firm. The slotted sieve racks at the fan end



Adjustable Sieve

BELLE CITY THRESHERS

Weigher with Cross Conveyor and Wagon Spouts

A WEIGHER with cross conveyor and wagon spouts can be secured for use on the Belle City when so desired. This attachment is made of steel, is light, strong and durable, and requires very little power to operate. The elevator tubes are attached to the side of the thresher in a perpendicular position. These tubes are placed at the proper distance from each other to allow the chain and buckets to turn at the end without undue friction. Both the weighing and tallying are done positively and accurately with the weigher. The bagger will deliver at almost any position on either side of the machine, as the bagger and wagon loader tubes can be readily changed from one side of the machine to the other.

The conveyor which carries the grain across the top of the machine can, by a simple shifting lever, be made to deliver the grain on either side of the thresher.

Tailings Elevator

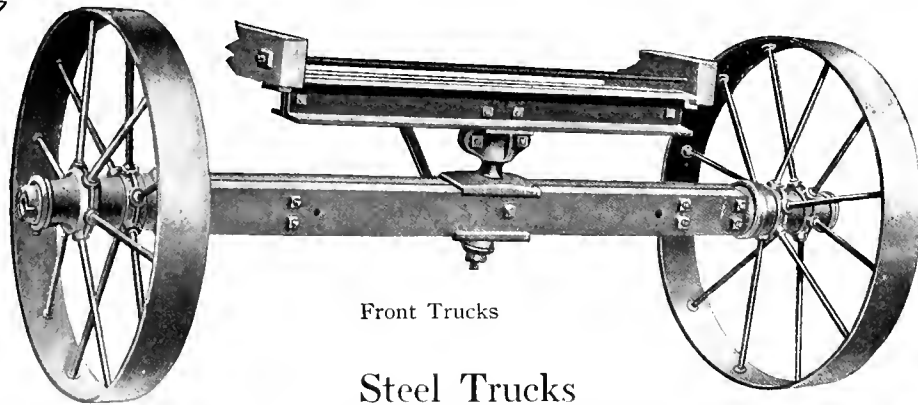
The tailings elevator on the Belle City thresher delivers the tailings to the cylinder without clogging or choking. This elevator extends a short distance above the machine, and like the grain elevator, has a sprocket chain equipped with wooden buckets. The upper shaft of this elevator works in sliding boxes, consequently the slack in the chain can be taken up when necessary.

Grain Elevator

The grain elevator extends high above the thresher to allow the swinging spout to deliver grain on either side of the machine. The sprocket chain equipped with wooden buckets lined with sheet iron lifts the grain to the spout. The shaft at the upper end of the elevator over which the chain passes is fitted with adjustable sliding boxes so that the slack in the chain can be taken up when necessary. The chain of the elevator is driven from the lower end by the grain augur shaft.

The swinging spout is adapted for loading wagons or bagging grain. Two hooks on which to hang the bag while being filled are attached to the lower end of the spout. The spout is also provided with a cut-off which can be closed when changing bags or wagons. When ordered without the grain elevator a cast iron grain box is provided, which is, in fact, the lower end of the grain elevator. The cost is reduced and there is a slight reduction in the power required to operate it when only the grain box is used. There is a cut-off on the bottom of the grain box which permits changing the measure without wasting the grain. The grain register is very convenient for use with the grain box.

BELLE CITY THRESHERS



Front Trucks

Steel Trucks

The truck wheels on the Belle City thresher are steel. Steel wheels are better for threshing machines than any other kind because they are not affected by moisture, heat or cold. These wheels have round steel staggered spokes, wide tires and substantial hubs of high grade steel. The rim being wide, permits hauling the machine over the soft ground so often found in barn lots and fields.

Channel steel is used in the axles of Belle City trucks. The skeins are made of a superior quality of steel and are so shaped that they fit the hub in the best manner to produce light draft.

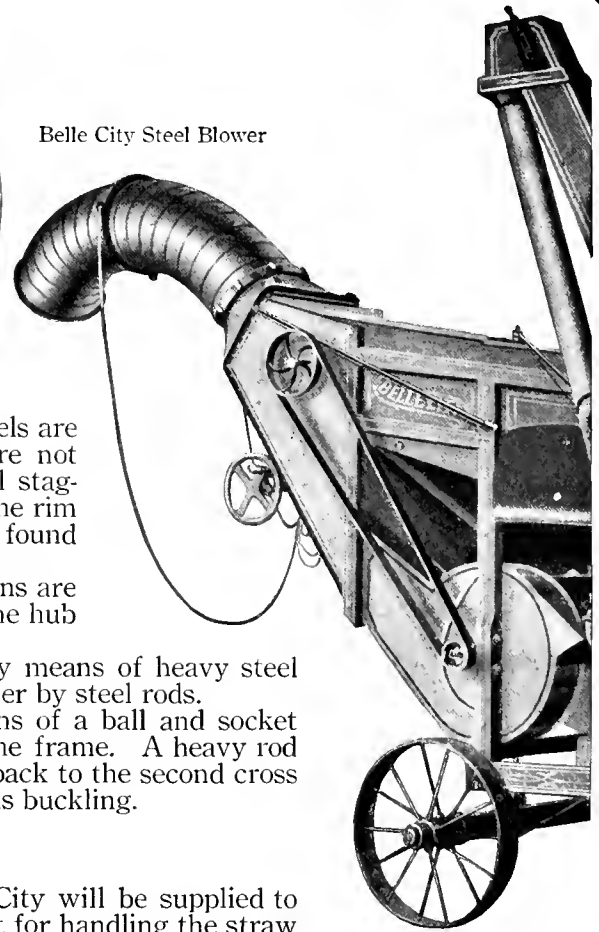
The rear trucks are attached to the sills of the thresher frame by means of heavy steel connecting posts. These trucks are also braced in a most rigid manner by steel rods.

The front trucks are attached to a channel steel bolster by means of a ball and socket connection. The bolster in turn is rigidly bolted to the side sills of the frame. A heavy rod extends from the under side of the front axle in a diagonal position back to the second cross sill of the frame. This rod forestalls any possibility of the front trucks buckling.

Blower

Some farmers prefer a blower to the plain stacker and the Belle City will be supplied to suit the purchaser. The Belle City blower is a very simple attachment for handling the straw and takes care of all the straw in nice shape. It is made entirely of steel, which eliminates wear. This blower is convenient to operate and may be adjusted to the required position for making a good stack. The straw does not pass through the fan on this blower.

Belle City Steel Blower



BELLE CITY THRESHERS

Grain Register

The grain register is very convenient for use when only the grain box on the thresher is used. There are no parts on this register to get out of order. It is accurate and easily adjusted.

When desired, galvanized measures will be furnished. These measures are convenient, light and very durable.

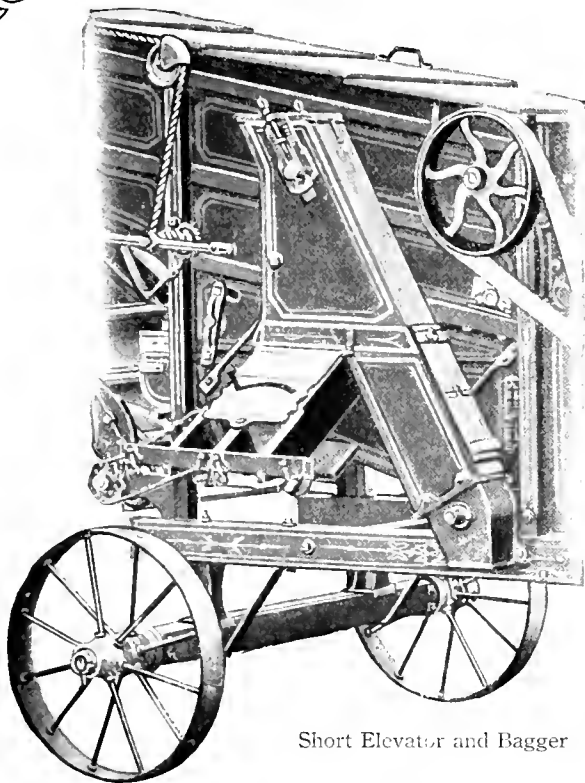


Short Elevator and Bagger

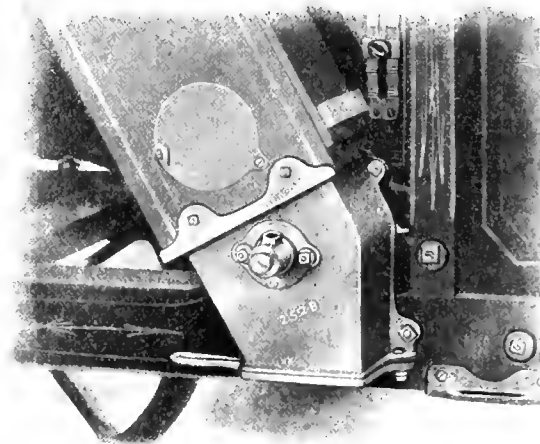
This attachment can be used in place of the long grain elevator. Where it is not desirable to place the grain directly in a wagon box, it is found very convenient.

Special attachments are used on the spouts of this elevator, so that the bag can be easily clamped to it. A shut-off lever directly over the spout enables the operator to change the course of the grain from

one bag to the other—a very convenient device, as it prevents loss of grain when changing the bag. This bagger is attached to the left side of the Belle City thresher, and is driven directly from the grain augur shaft; consequently outside chains are unnecessary. The spout section is so hinged that it can be easily detached for convenience in moving.



Short Elevator and Bagger



Grain Box

Weather Boards

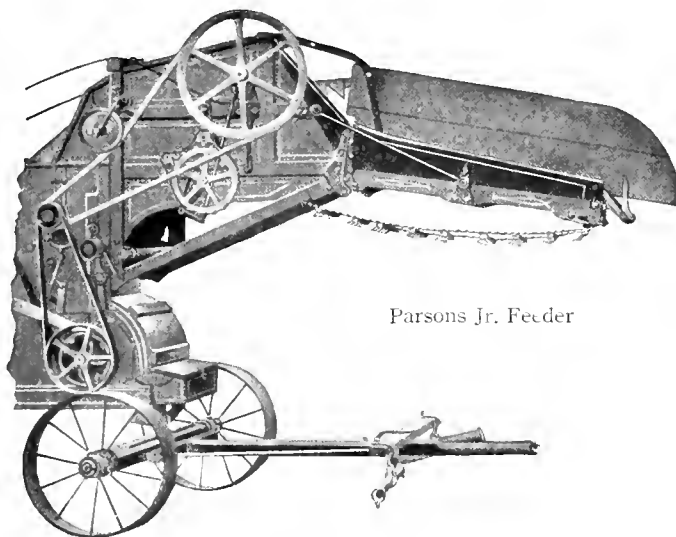
The weather boards above the straw rakes lap one over the other and are easily removed. When more room is required for heavy straw the weather boards can be thrown forward. They are hinged for that purpose.

BELLE CITY THRESHERS

Self-Feeders

On this page are illustrated two styles of self-feeders, one of which will be found suitable for any requirements. When ordering always state which feeder is preferred. If a self-feeder is ordered without stating which kind, we will ship the one that in our judgment is best adapted for the territory for which it is ordered.

A self-feeder reduces the expense of operating the thresher because less help is required. It requires very little additional power—usually about two horse-power extra. The self-feeder does not interfere with removing or adjusting the concaves.



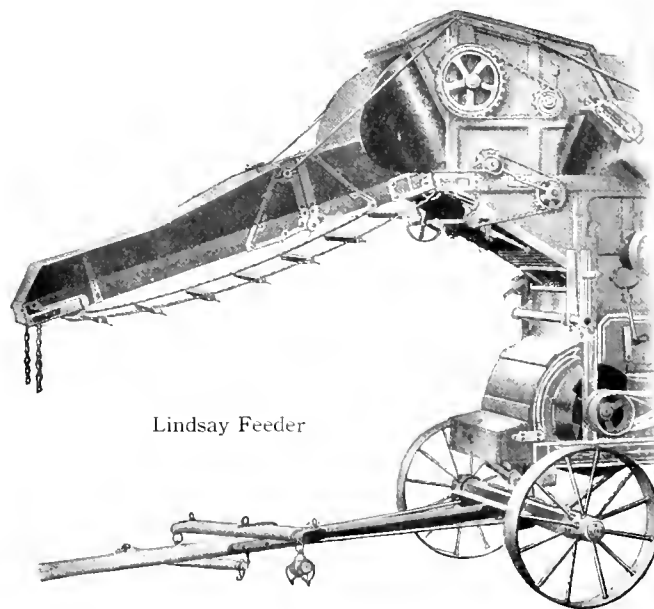
Parsons Jr. Feeder

Instructions for Ordering Thresher

Be sure to give size of thresher wanted, whether 16 by 24-inch, 24-inch by 24-inch, 24-inch by 32-inch, 32-inch by 32-inch, or 32-inch by 40-inch. State clearly the speed of the engine and the size of band wheel to be used in operating.

Always state clearly what attachments are required: whether trucks, 18 or 24-foot folding stacker, grain elevator, bagger, weigher, blower, hand feed, or self-feeder.

In ordering special attachments for thresher, be sure to give size of cylinder with the number of the machine, which will be found on the front end directly below the cylinder. This number will also be found stamped in the front end of the main sill on the right side.



Lindsay Feeder

BELLE CITY THRESHERS

Bruiser Attachment

In some localities, and particularly in Mexico, there is a demand for an attachment on a threshing machine to bruise or crush the straw before it leaves the machine. An attachment of this kind can be secured for use on the Belle City. It is a special cylinder to be placed directly under the rear end of the straw rakes, so that the straw in leaving the rakes passes through the special cylinder which reduces it to the required condition.



Bruiser Attachment

Belle City Side Gear for Horse Power

A side gear for use with a sweep horse power, will be furnished for the 24-inch by 24-inch and the 32-inch by 32-inch machine when ordered. This side gear is without exception one of the best that has ever been put on a thresher. The gear frame is cast as a part of the side plate and the driving pinion is placed within the cylinder bearing. This permits the use of a larger gear wheel than is used on other machines. The bearing is constructed to apply the power to the best advantage by not taking it through the cylinder journal, entirely obviating all trouble with hot boxes. The speed of the cylinder is increased $5\frac{1}{4}$ times over the tumbling rod, consequently the desired speed is obtained.

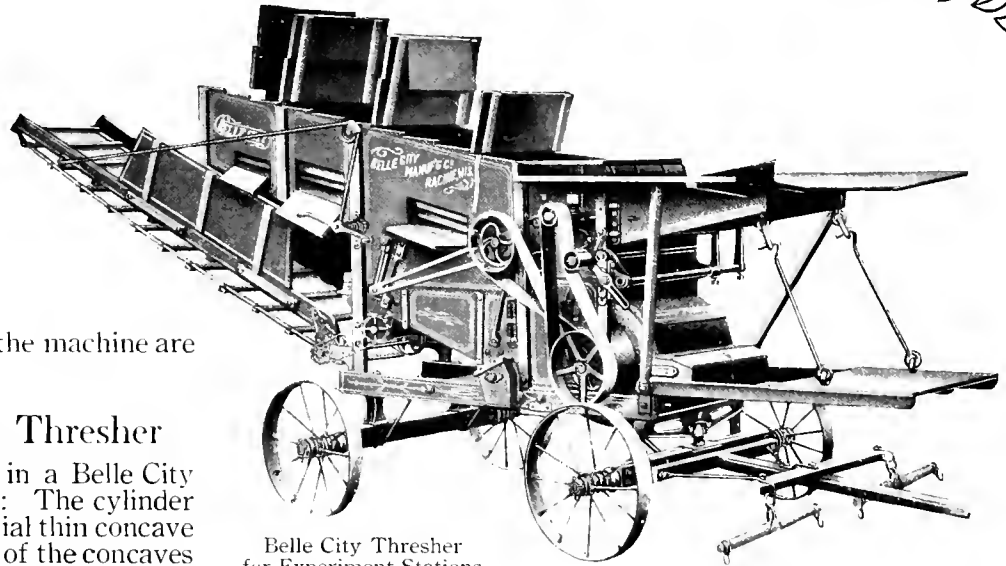
BELLE CITY THRESHERS

Special Threshers For Experiment Stations

This thresher has become very popular for use in Experiment Stations because it can be cleaned thoroughly of chaff and seed, or grain, after each setting, so there will be no mixture of the clean product. To aid in cleaning the thresher, numerous doors and openings are provided, so that all parts of the machine are easily accessible.

The Belle City As a Pea Thresher

The following changes are made in a Belle City thresher when used for threshing peas: The cylinder speed is reduced about one-half. Special thin concave teeth are used, also a special pan back of the concaves and sieves and screen. These parts are not furnished with the regular machine. Many of these threshers have been sold for threshing peas and all are operating very successfully; in fact, in some cases they have proven more efficient than machines built purposely for threshing peas.



Belle City Thresher
for Experiment Stations

Contents of a Wagon Box

In the absence of a weigher, grain can be measured in a wagon box with sufficient accuracy for thresher purposes.

To find how many bushels a wagon box will contain, measure the length, width and depth of the inside in inches. Multiply them together, which will give the cubic inches in the box. Divide this by 2150, which is the number of cubic inches in a bushel, thus:--

The ordinary farm wagon bed is 126 inches long, 40 inches wide and 16 inches deep.

$$\frac{126 \times 40 \times 16}{2150} \text{ equals } 37 \text{ bushels.}$$

Having ascertained in this way what the wagon box will hold, draw a perpendicular line anywhere on the inside of the bed, divide this line in as many equal parts as the box will contain bushels, number the points from the bottom up, and you have a scale that will show what number of bushels any part of the load will contain. A wagon box to contain 100 bushels should be about 126 inches long, 40 inches wide and 42 inches deep.

BELLE CITY THRESHERS

Power for Threshing

As a power for threshing, the International tractor has certainly demonstrated that it is the best.

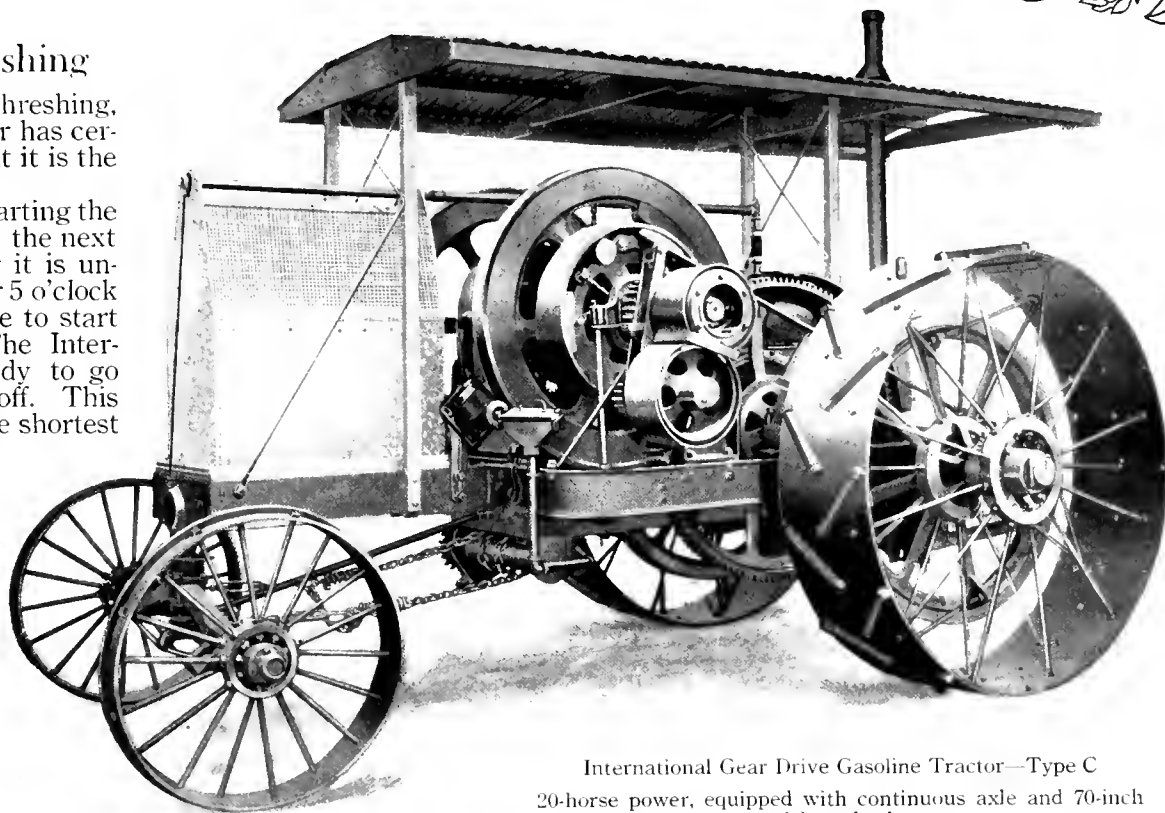
No time is lost in starting the International tractor to the next job, and in the morning it is unnecessary to arise at 4 or 5 o'clock to get up steam in time to start several hours later. The International tractor is ready to go when the spark is set off. This engine can travel by the shortest route, because it is not necessary to go many miles out of the way to avoid unsafe bridges, as is often the case with a heavy steam outfit.

Another decided advantage of the gasoline engine for threshing power is that the engine does not require continual attention, consequently the time can be given to the separator. Steam

engines require one man's constant attention. Again, the operator of a gasoline engine does not have to work in excessive heat like he does when operating the steam outfit.

An International tractor in connection with the Belle City thresher, makes an ideal individual thresherman's outfit. The thresher requires a small amount of power and being of moderate weight, it can be moved easily.

It not only meets the requirements of the individual farmer, but also those who wish to club together and have an outfit to take care of their combined jobs. The machine is light, compact, of good capacity, does excellent work, and requires very little power for operation—practically no extra help is required to operate the outfit.



International Gear Drive Gasoline Tractor—Type C
20-horse power, equipped with continuous axle and 70-inch drive wheels

BELLE CITY THRESHERS

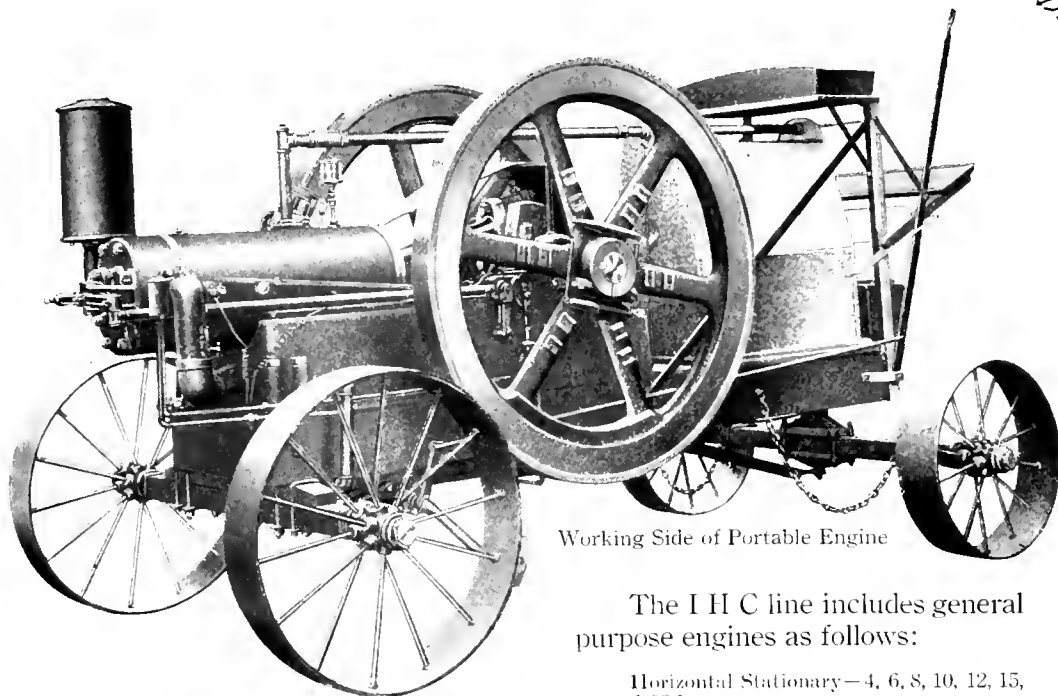
The Best Power for a Belle City Thresher

Because of the saving in labor, time and money, the International Harvester Company gasoline engine is the best power for driving the Belle City thresher.

It saves labor, because it requires practically no attention—the only attention required is to start and stop it; keep the fuel tank filled and to oil occasionally. There is no water, coal or wood to be hauled.

It saves time, because there is no waiting to get up steam—the engine is always ready to start.

It saves money, because of the above reasons, and also because of the small amount of fuel required in comparison with the work it does.



Working Side of Portable Engine

The I H C line includes general purpose engines as follows:

Horizontal Stationary—4, 6, 8, 10, 12, 15, 20 and 25-horse power.

Vertical Stationary—2, 3 and 25-horse power.

Hopper cooled—2, 2½, 3, 4, 6 and 8-horse power.

Portable—4, 6, 8, 10, 12, 15, 20 and 25-horse power.

Famous skidded—2, 3, 4, 6 and 8-horse power.

Famous mounting engines—2½ to 20-horse power.

Air-cooled—1, 2 and 3-horse power.

Traction—12, 15 and 20-horse power.

Also spraying, sawing and pumping outfits and jacks.



An International tractor operating a Belle City thresher



